

TITLE AMENDMENTS

Replace the title with:

DEVICES AND ~~METHODS~~ HOUSINGS FOR TEST SAMPLE PREPARATION

SPECIFICATION AMENDMENTS

Replace the Technical Field section with:

The present invention relates to devices and ~~methods~~ housings for preparing test samples.

Replace the entire Summary of the Invention section with:

According to one aspect of the invention, a test sample preparation device, which may be used for simultaneously preparing multiple samples directly into vials coupled to a sampler tray, may comprise a housing, a filter assembly, a sampler tray and a plurality of vials. The housing may have an opening, an interior and an exterior, and a vacuum channel. The vacuum channel provides fluid communication between the interior and the exterior of the housing and is capable of coupling a vacuum source to the interior of the housing. The filter assembly is disposed over the opening of the housing and includes a plurality of wells each having two open ends and a plurality of porous media that are disposed in the wells, respectively. The sampler tray is removably disposed in the housing. The plurality of vials are removable coupled to the sampler tray and are in liquid receiving relationship with the wells, respectively. The test sample preparation device may further comprise a key mechanism coupled to the housing to uniquely define the position of each vial with respect to the housing.

According to another aspect of the invention, a housing which holds a sampler tray containing vials receiving a liquid sample may comprise a generally cylindrical body that includes open and closed ends and has an interior and an exterior, a vacuum channel that provides fluid communication between the interior of the cylindrical body and the exterior of the cylindrical body, and a key mechanism. The key mechanism includes a post that has first and second ends with the first end being attached to the closed end of the cylindrical body, an annular protrusion disposed at the second end of the post, and a notch disposed within the annular protrusion. The key mechanism is arranged to orient the sampler tray and the vials with respect to the housing.

~~According to another aspect~~ For some embodiments of the invention, ~~a~~ the filter assembly, ~~which is~~ ~~may be~~ used for simultaneously preparing multiple samples directly into vials, ~~comprises~~ and ~~may comprise~~ a cover defining an impervious wall ~~and~~ ~~a~~ with the plurality of wells unitarily formed in the wall. ~~Each well has~~ The first and second open ends of each well ~~which~~ define a fluid flow path through the wall of the cover via the well between the first end of the well and the second end of the well, wherein each well includes a support and ~~a~~ the porous medium ~~is~~ mounted to the support. The support extends across the fluid flow path of the well and contacts the porous medium whereby fluid flowing through the well from the first end of the well to the second end of the well flows through the porous medium and past the support. The first end of the well is upstream of the porous medium and the second end of the well is downstream of the porous medium, wherein the second end of the well comprises a tubular protrusion which, when a vial is placed in liquid receiving relationship with the well, is capable of extending into the vial to minimize cross-contamination.

~~According to a still another aspect of the invention, a housing which holds a sampler tray containing vials receiving a liquid sample~~ may ~~comprises~~ a generally cylindrical body that includes open and closed ends and has an interior and an exterior, a vacuum channel that provides fluid communication between the interior of the cylindrical body and the exterior of the cylindrical body, and a key mechanism. The key mechanism includes a post that has first and second ends with the first end being attached to the closed end of the cylindrical body, an annular protrusion disposed at the second end of the post, and a notch disposed within the annular protrusion. The key mechanism is arranged to orient the sampler tray and the vials with respect to the housing.

~~According to a further aspect~~ Some embodiments of the invention, ~~may be used in a method for simultaneously preparing multiple test samples for automated liquid chromatography, the method comprising~~ depositing test samples into ~~a~~ the plurality of wells, simultaneously passing the test sample through ~~the porous media deposited~~ ~~disposed~~ in the wells, and depositing the filtered test samples directly into ~~the~~ vials removably coupled to ~~a~~ the sampler tray.

~~According to a still further aspect~~ Some embodiments of the invention, ~~may be used in a method for automated liquid chromatography, the method comprising~~ depositing test samples into ~~a~~ the plurality of wells, simultaneously passing the test samples through ~~the~~ porous media ~~deposited~~ ~~disposed~~ in the wells, depositing the filtered test samples directly into ~~the~~ vials removably coupled to a sampler tray, and directing the filtered test samples

contained in the vials removably coupled to the sampler tray through an automated liquid chromatography device.

Replace the paragraph beginning at page 11, line 22 with:

As shown in Figures 1, 2, 3a and 7, the spatial relationship between the filter assembly 10 and the housing 60 may be defined by the three pins 74 76 and the three notches 21, although four or more pins and notches may be used. Preferably the three pins 74 76 are arranged in a circle and are perpendicularly attached to the flange surface 65 facing the cover plate 11. The three notches 21 may be located along the outer periphery of the cover plate 11. When the filter assembly 10 is disposed over the opening 62 of the housing 60, the three notches 21 engage the three pins 74 76 to align the filter assembly 10 with the housing 60. If the three notches 21 and three pins 74 76 are equally spaced circumferentially, each notch 21 may engage any one of the three pins 74 76, and accordingly, each well 12 may be in one of three possible positions relative to the housing 60. If the three notches 21 and three pins 74 76 are not equally spaced circumferentially, each notch 21 will always engage the same pin 74 76, and accordingly, each well 12 will only be in same circumferential position relative to the housing 60, thereby uniquely identifying each well with a particular vial. Accordingly, the key mechanism for orienting the filter assembly 10 and the wells 12 with respect to the housing 60 may include the three pins 76 and their locations. Additionally, the axial positions of the wells 12 may be defined by adjusting the location on the well 12, at which the cover plate 11 intersects the wells 12. The cover plate 11 may intersect the wells 12 at either end 14, 15 of the wells 12, or it may intersect the wells 12 anywhere between the two ends 14, 15.

Replace the paragraph beginning at page 12, line 8 with:

Consequently, the sampler tray 30 and the filter assembly 10 may be concentrically arranged by adjusting either the position of the cylindrical post 67 or the positions of the three pins 74 76, or both. The vials 50 and the wells 12 may be circumferentially aligned by adjusting either the position of the notch 70 or the positions of the three pins 74 76, or both. If the positions of the three pins 74 76 are not equally spaced circumferentially, each vial 50 is uniquely aligned with a specific well 12. The axial relationship between the vials 50 and the wells 12 can be arranged by adjusting either the height of the sidewall 61 of the housing 60, the location on the wells 12, at which the cover plate 11 intersects the wells 12, or the length of the tubular protrusions 18 at the second ends 15 of the wells 12.